

<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER 436589
		U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 10/535,688
INTERNATIONAL APPLICATION NO. PCT/EP03/12433	INTERNATIONAL FILING DATE November 6, 2003	PRIORITY DATE CLAIMED November 12, 2002
TITLE OF INVENTION SURFACE-EMITTING SEMI-CONDUCTOR LASERS HAVING BURIED TUNNEL JUNCTIONS AND METHODS OF PRODUCING SAME		
APPLICANT(S) FOR DO/EO/US Marcus-Christian AMANN		
<p>Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:</p> <ol style="list-style-type: none"> <li><input type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li><input checked="" type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li><input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</li> <li><input type="checkbox"/> The US has been elected (Article 31).</li> <li><input type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))             <ol style="list-style-type: none"> <li><input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li><input type="checkbox"/> has been communicated by the International Bureau.</li> <li><input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li><input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).             <ol style="list-style-type: none"> <li><input type="checkbox"/> is attached hereto.</li> <li><input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li><input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))             <ol style="list-style-type: none"> <li><input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li><input type="checkbox"/> have been communicated by the International Bureau.</li> <li><input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li><input type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li><input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li><input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li><input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol> <p><b>Items 11 to 20 below concern document(s) or information included:</b></p> <ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li><input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li><input type="checkbox"/> A preliminary amendment.</li> <li><input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.</li> <li><input type="checkbox"/> A substitute specification.</li> <li><input checked="" type="checkbox"/> A power of attorney and/or change of address letter.</li> <li><input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.</li> <li><input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</li> <li><input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li> <li><input checked="" type="checkbox"/> Other items or information: Submission of Missing Requirements, IDS Transmittal, Copy of 10 References, Certificate of Mailing and Return Post Card</li> </ol>		


This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 10/535,688		INTERNATIONAL APPLICATION NO. PCT/EP03/12433		ATTORNEY'S DOCKET NUMBER 436589	
The following fees are submitted:				<b>CALCULATIONS</b> <b>PTO USE ONLY</b>	
21. <input type="checkbox"/> Basic national .....\$300				\$	
22. <input type="checkbox"/> Examination Fee If international preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4) .....\$100 All other situations .....\$200				\$	
23. <input type="checkbox"/> Search fee Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority .....\$100 International Search Report prepared and provided in the Office .....\$400 All other situations .....\$500				\$	
<b>TOTAL OF 21, 22 and 23 =</b>				<b>\$ 0</b>	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof					
Total Sheets	Extra sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
- 100 =	0/50 =		x \$250	\$ 0	
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$ 130	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	- 20 =	0	x \$50	\$ 0	
Independent claims	- 3 =	0	x \$200	\$ 0	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360	\$	
<b>TOTAL OF ABOVE CALCULATIONS =</b>				<b>\$ 130</b>	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/3.				\$	
<b>SUBTOTAL =</b>				<b>\$ 130</b>	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				+	\$ 130
<b>TOTAL NATIONAL FEE =</b>				<b>\$ 260</b>	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				+	\$ 40
<b>TOTAL FEES ENCLOSED =</b>				<b>\$ 300</b>	
				Amount to be refunded:	\$
				Amount to be charged:	\$
a. <input type="checkbox"/> A check in the amount of \$ _____ to cover the above fees is enclosed. b. <input checked="" type="checkbox"/> Please charge my Deposit Account No. <u>12-0600</u> in the amount of \$ <u>300.00</u> to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>12-0600</u> . A duplicate copy of this sheet is enclosed. d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. <b>NOTE:</b> Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status. SEND ALL CORRESPONDENCE TO: CUSTOMER NO. 30955 LATHROP & GAGE LC 4845 Pearl East Circle, Suite 300 Boulder, Colorado 80301					
				SIGNATURE Curtis A. Vock	
				NAME 38,356	
				REGISTRATION NUMBER	

01/03/2006 HKH1PGRH 00000101 120600 10335689

01 FC:161 130.00 DA  
02 FC:161 130.00 DA

<b>CERTIFICATE OF MAILING BY EXPRESS MAIL POST OFFICE TO ADDRESSEE (37 CFR 1.10)</b>			<b>Matter No.</b>
Applicant(s): Marcus-Christian Amann			436589
<b>Serial No.</b>	<b>Filing Date</b>	<b>Examiner</b>	<b>Group Art Unit</b>
10/535,688	May 19, 2005	Not Yet Assigned	Not Yet Assigned
<b>Invention</b> Surface-Emitting Semi-Conductor Lasers Having Buried Tunnel Junctions And Methods of Producing same			
<p>I hereby certify that the following: Transmittal Letter to the United States Designated/Elected Office (DO/EO/US) Concerning a Submission Under 35 U.S.C. 371 (2 pages in duplicate); Response to Missing Requirements (1 page); Copy of Notification of Missing Requirement Under 35 USC 371 In the United States Designated/Elected Office (DO/EO/US) (2 pages); Declaration And Power of Attorney For Patent Application (3 pages); Recordation Form Cover Sheet (1 page in duplicate); Assignment for Application (1 page); Power of Attorney And Correspondence Indication Form (1 page); Statement Under 37 CFR 3.73(b) with copy of Assignment (2 pages); Information Disclosure Statement Transmittal (2 pages); Information Disclosure Statement By Applicant (2 pages); Copy of 10 references; authorization to charge \$300 (\$130 for the late filing of translation, \$130 for late filing of declaration and \$40 for the recordation); authorization to charge additional fees that may be required, or credit any overpayment, to Deposit Account No. 12-0600; and return post card are being mailed in an envelope addressed to: Mail Stop: PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 28th day of December, 2005.</p>			
<div style="text-align: right;"> <b>Sharon Schenk</b>  Name of Depositor </div>			
<div style="text-align: center;">   Signature of Depositor </div>			
<div style="text-align: right;"> <b>EV413219918US</b>  Express Mail Label No. </div>			

Rec'd 28 DEC 2005 PATENT

Journey Docket No.: 436589  
Express Mail Label No.: EV413219918US

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Marcus-Christian Amann  
Serial No.: 10/535,688  
Filed: May 19, 2005  
For: Surface-Emitting Semi-Conductor Lasers  
Having Buried Tunnel Junctions And  
Methods of Producing Same

Examiner: Not Yet Assigned  
Group Art No.: Not Yet Assigned  
Confirmation No. 4283

December 28, 2005

Mail Stop PCT  
Commissioner For Patent  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE TO MISSING REQUIREMENTS**

Dear Sir:

In response to the Notification of Missing Requirements Under 35 USC 371 In The United States Designated/Elected Office (DO/EO/US) dated November 28, 2005 (copy appended), enclosed herewith find the following:

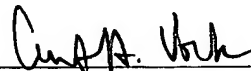
1. Declaration And Power of Attorney For Patent Application;
2. Recordation Form Cover Sheet;
3. Assignment;
4. Power of Attorney And Correspondence Address Indication Form; and
5. Statement Under 37 CFR 3.73(b).

Pursuant to 37 CFR 1.492(i), the \$130.00 fee for late submission of translation; 37 CFR 1.492(h) for late filing of the Declaration and pursuant to 37 CFR 1.21, the \$40.00 fee for recordation of assignment should be applied against our Deposit Account No. 12-0600. Any additional fee which might be due in connection with this request should be applied against our Deposit Account No. 12-0600.

The Examiner is encouraged to contact the undersigned if prosecution of the application may be expedited thereby.

Respectfully submitted,

LATHROP & GAGE LLC



Curtis A. Vock, Reg. No. 38,356  
4845 Pearl East Circle, Suite 300  
Boulder, Colorado 80301  
Tel No: (720) 931-3011  
Fax No: (720) 931-3001

Rec'd PCT/PA 28 DEC 2005



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/535,688	Marcus-Christian Amann	436589

INTERNATIONAL APPLICATION NO.
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PCT/EP03/12433

I.A. FILING DATE	PRIORITY DATE
11/06/2003	11/12/2002

30955  
 LATHROP & GAGE LC  
 4845 PEARL EAST CIRCLE  
 SUITE 300  
 BOULDER, CO 80301

CONFIRMATION NO. 4283

371 FORMALITIES LETTER



\*OC000000017349976\*

Date Mailed: 11/28/2005

### NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

- Copy of the International Application filed on 05/19/2005
- English Translation of the IA filed on 05/19/2005
- Copy of the International Search Report filed on 05/19/2005
- Copy of IPE Report filed on 05/19/2005
- Preliminary Amendments filed on 05/19/2005
- Copy of references cited in ISR filed on 05/19/2005
- U.S. Basic National Fees filed on 05/19/2005
- Substitute Specification filed on 05/19/2005
- Priority Documents filed on 05/19/2005

The applicant needs to satisfy supplemental fees problems indicated below.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Processing fee for providing the translation of the application and/or the Annexes later than 30 months from the priority date (37 CFR 1.492(i)).
- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.492(h) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.

105  
 11/30/05  
 RTH

## SUMMARY OF FEES DUE:

Total additional fees required for this application is **\$260** for a Large Entity:

- **\$130** Surcharge.
- **\$130** for English translation surcharge required.

**ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.**

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

MAMIE P PERSON

Telephone: (703) 308-9140 EXT 227

## PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/535,688	PCT/EP03/12433	436589